

# TC 4.5 Program Subcommittee Meeting Minutes

Sunday, January 26, 2003

4:00 – 5:00 p.m.

Room PDR 16  
Palmer House Hilton  
Chicago, Illinois

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## Attendees[14]

Michel Bernier/Ecole Polytechnic	Joe Klems/LBNL
Mike Collins/Univ. of Waterloo	Christian Kohler/LBNL
D. Charlie Curcija/Univ. of Massachusetts	Marc LaFrance/U.S. Dept. of Energy
François Dubrous/National Resources Canada	Peter Lyons/Australian Window Assoc.
William duPont/LBNL (Chair)	Anil Parekh/National Resources Canada
Hakim Elmahdy/IRC-NRC	Bipin Shah/NFRC
Howdy Goudey/LBNL	John Wright/Univ. of Waterloo

I. Introductions, and Marc LaFrance agreed to be secretary

## II. Chicago Program, January 25-29, 2003

**Symposium CH-03-10:** “Improvements in Fenestration Analysis”, *Chair: Dragan Curcija/Univ. of Massachusetts* {Wednesday 01/29/03, 10:15-12:15 p.m., Parlor H}

- 1) “THERM Simulation of Window Indoor Surface Temperature for Predicting Condensation”, *Christian Kohler, Dariush Arasteh & Robin Mitchell/LBNL*
- 2) “Quantification of Air-Leakage Effects on the Condensation Resistance of Windows”, *Hakim Elmahdy/NRC*
- 3) “Solar Heat Gain Through a Skylight in a Light Well”, *Joseph Klems/LBNL*

**Deadlines: Technical Papers were due to ASHRAE on April 2, 2002;**

**TC 4.5 Symposium Papers were due to Symposium Chairs on April 2, 2002;**

**All reviewed paperwork with TC Chair signature to ASHRAE: August 2, 2002.**

## III. Kansas City Program, June 22-26, 2003

[1] **Symposium:** “Improving the Energy Performance of Windows”, *Chair: Mike Collins/Univ. of Waterloo*

- 1) “Measured Winter Performance of Storm Windows”
- 2) “The Comparison of Calculated and Measured Indoor Side Temperature Profiles”
- 3) “Future Advanced Windows for Zero-Energy Homes”

[2] **Seminar:** “Back to Basics: Specifying the Right Windows for Your Job”, *Chair: François Dubrous/NRC*

- 1) “Reducing Solar Heat Gains in Commercial Buildings With Low-E Glass”, *Dariush Arasteh/LBNL*
- 2) “Window Condensation: The Evil You Can Do Without”, *Hakim Elmahdy/NRC*
- 3) “How to Get the Window Performance You Want on Site”, *Alex McGowan/Levelton Engineering, Ltd.*

## Kansas City Program, June 22-26, 2003 (continued)

**Deadlines: Technical Papers were due to ASHRAE on September 27, 2002;  
TC 4.5 Symposium Papers were due to Symposium Chairs on September 27, 2002;  
All reviewed paperwork with TC Chair signature to ASHRAE: February 7, 2003.**

*Numbers in brackets, [ ], signify priority as voted by Technical Committee 04.05 on 01/28/03*

Submit 1 copy of packet material to ASHRAE (Mary McGee, Meeting Program Administrator)

NOTE: When submitting paperwork to ASHRAE, be sure to include any special requests, i.e., day of the week you need to present or time (i.e., prefer Sunday or Monday). Please also inform your Section 4.0 Program Liaison, Kelley Cramm (kcramm@ideakc.com), of this information.

### IV. **Anaheim Program, January 24-28, 2004**

**Symposium:** “Infrared Temperature Measurements and Computer Simulation of Window Assemblies”, *Chair: François Dubrous/NRCan*

- 1) “Computer Simulation of Specimens Using FIDAP”, *Dragan Curcija/Univ. of Massachusetts*
- 2) “Test of Specimens Using Infrared Temperature Measurements at NRC”, *Hakim Elmahdy/NRC*
- 3) “Summary of Test and Simulation Results”, *Anil Parekh/NRCan*
- 4) “Determining Condensation Resistance with IR Thermography”, *Howdy Goudey & Dariush Arasteh/LBNL*

**Symposium:** “Improvements in Computer Modeling Fenestration Performance”, *Chair: Peter Lyons/Australian Window Assoc.*

- 1) “Variable-h Model for Improved Prediction of Surface Temperature in Fenestration Systems”, *Dragan Curcija and Yie Zhao/Univ. of Massachusetts*
- 2) “Use of Detailed Radiation Modeling in Predicting Heat Transfer of Fenestration Systems”, *Dragan Curcija/Univ. of Massachusetts*
- 3) “Calculation of Condensation Resistance Indices Using Computer Modeling Tools”, *Dragan Curcija/Univ. of Massachusetts and Bipin Shah/NFRC*
- 4) “Results and Lessons of NFRC Round Robin Testing and Simulations”, *Bipin Shah, Dan Wise/NFRC and Dragan Curcija/Univ. of Massachusetts*
- 5) “Impact of Fenestration System on Occupant Thermal Comfort,” *Kirby S. Chapman & Jeet Sengupta/Kansas State Univ.*
- 6) “Simplified Modeling of Cylindrical Skylights”, *Andrew Mark & Steve Harrison/ Queens Univ.*

**Symposium:** “Evaluating and Improving Fenestration Frame Performance”, *Chair: Bipin Shah/NFRC*

- 1) “Warm Edge Technology”, *Hakim Elmahdy/NRC*
- 2) “Correlations for Frame Cavity Heat Transfer Using CFD and 2D Tools”, *Christian Kohler, Arild Gustavsen, Brent Griffith, and Dariush Arasteh/LBNL*
- 3) “Solar Heat Gain Coefficient Calculations for Frames Using 2D FEA Tools”, *Christian Kohler/LBNL and Dragan Curcija/Univ. of Massachusetts*
- 4) “Update of LBNL Research on Condensation Resistance Evaluation”, *Christian Kohler & Dariush Arasteh/LBNL*
- 5) “Annual Energy Performance of Skylights”, *Peter Lyons/Australian Window Assoc.*

**Symposium:** “Results from NFRC SHG Research Projects”, *Chair: Mike Collins/Univ. of Waterloo*

- 1) “Evaluation of Calorimeter Tilt Angle on the Impact of the Solar Heat Gain Coefficient Measurement Using an Outdoor Solar Calorimeter Located in Tempe, Arizona”, *David Tait/Tait Solar*
- 2) “Solar Heat Gain Coefficients for Seven Glazing Types in Combination With Nine Interior Window Attachment Products”, *David Tait/Tait Solar*
- 3) “NFRC Glass Block Solar Heat Gain Research Project”, *David Tait/Tait Solar*

#### **Anaheim Program, January 24-28, 2004 (continued)**

**Symposium:** “Predicting the Performance of Fenestration Attachments”, *Chair: Marc LaFrance/U.S. Department of Energy.*

- 1) “Methods for Calculating the Effective Longwave Radiation Properties of a Venetian Blind Layer”, *Darryl Yahoda & John Wright/University of Waterloo*
- 2) “Methods for Calculating the Effective Solar-Optical Properties of a Venetian Blind Layer”, *Darryl Yahoda & John Wright/University of Waterloo*
- 3) “Heat Transfer Analysis of a Between-Panes Venetian Blind Using Effective Longwave Radiation Properties”, *Darryl Yahoda & John Wright/University of Waterloo*
- 4) “Predicting the Solar Heat Gain and Thermal Performance of Shaded Windows”, *Mike Collins/Univ. of Waterloo & Steve Harrison/Univ. of Queens*
- 5) “Numerical Analysis of Windows with Venetian Blinds,” *Mike Collins/Univ. of Waterloo*
- 6) “Summer Performance of Storm Windows”, *Joe Klems/LBNL*

**Seminar:** “Back to Basics: Specifying the Right Windows for Your Job”, *Chair: François Dubrous/NRCan*

- 1) “How to Read Chapter 30 of the Handbook of Fundamentals”, *Steve Carpenter/Enermodal Engineering*
- 2) “Selecting the Right Glass for Solar Shading”, *Ross McCluney/FSEC*
- 3) “Get the Installation Right the First Time”, *Alex McGowan/Levelton Engineering, Ltd.*
- 4) “A Handy Way of Checking Window Options and the Impact on Whole Building Performance”, *Mike Lubun*

**Deadlines: Technical Papers are due to ASHRAE on April 4, 2003;**

**TC 4.5 Symposium Papers are due to Symposium Chairs on April 4, 2003;**

**All reviewed paperwork with TC Chair signature to ASHRAE: August 8, 2003.**

#### **IV. Nashville Program, June 26-30, 2004**

**Deadlines: Technical Papers are due to ASHRAE on September 26, 2003;**

**TC 4.5 Symposium Papers are due to Symposium Chairs on September 26, 2003;**

**All reviewed paperwork with TC Chair signature to ASHRAE: February 14, 2004.**

#### **V. Adjourn**

*Respectively Submitted: Marc LaFrance/U.S. Department of Energy*